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EXAMINER

HASSAN, RASHEDUL

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2179

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/814,520

Applicant(s)

CHIU ET AL.

Examiner

Rashedul Hassan

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 06/25/2007, and 09/18/2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-16, 18-24, 26-35, 37 and 39 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-16, 18-24, 26-35, 37, and 39 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- ☐ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____
- ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- ☐ Notice of Informal Patent Application
- ☐ Other: _____

DETAILED ACTION

Response to Arguments

The Examiner acknowledges and appreciates Applicant's Arguments/Remarks and Amendments filed on 06/25/2007 and 09/18/2007.

Applicant has cancelled claims 17, 25, 36, and 38.

Applicant has added new claim 39.

Claims 1-16, 18-24, 26-35, 37, and 39 are currently pending.

Objection to Specification

Based on Applicant's amendment to the specification, previous objection to the specification for missing "Brief Summary of the Invention" has been hereby withdrawn.

Claim Rejections under 35 U.S.C. §112

Based on Applicant's amendments, previous rejections to claims 1-38 under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention have been hereby withdrawn.

Claim Rejection under 35 U.S.C. §101

Based on Applicant's amendments, previous rejections to claims 29-36 and 38 under 35. U.S.C 101 for being directed to non-statutory subject matter have been hereby withdrawn.

Claim Rejection under 35 U.S.C. §103

Applicant's arguments with regard to claim rejections under 35 U.S.C. §103 have been fully considered but they are not persuasive.

The Examiner notes that claim 1 has been amended to recite, "...wherein each of the one or more layers are rendered on top of each other in an alignment,..." in order to patentably distinguish it from the cited prior art references. Since the specification does not even mention anything regarding "alignment", the Examiner considered whether this new limitation claims a new matter or not. Based on Figure 4(a) through 4(c), and the Applicant's remark "*Nevertheless, in Plow, if the display areas are stacked in an alignment as in Applicant's invention, then only the top layers' transparency buttons are accessible because the top layer covers up all of the other layers' transparency buttons*", the Examiner concludes that the Applicant is probably interpreting the limitation "*in an alignment*" to mean "cover up in totality", in other words, each of the one or more layers are rendered on top of each other so that each layer totally cover ups the layer under it. Since such limitation may be implicit in Figure 4(a) through 4(c), the Examiner concludes that the added limitation "*in an alignment*" does not introduce new matter into the claim. However, the Examiner nevertheless considers that interpreting "in an alignment" to mean "cover up in totality" according to Applicant's disclosure is an unreasonably narrow interpretation of the limitation. Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993). Therefore,

according to the Examiner's interpretation of the limitation "in an alignment", Fig. 6 in Plow shows stacking up layered windows in an alignment, wherein the alignment requires displaying a top layer slightly underneath and a little to the side of the bottom layer so that they are diagonally aligned with each other as displayed in Fig. 6. When aligned this way, the transparency buttons of each layer will be accessible, and thus transparency values of multiple layers can be adjusted independently when the layers are in an alignment with one another. It is worth mentioning here that even if the limitation "in an alignment" were interpreted narrowly as mentioned above, still the claim would have been obvious further in view of Smith or in the alternative, further in view of Frank, since incorporating one of their teachings would have allowed one of ordinary skill in the art to use a mechanism to control transparency value of each of the one or more layers that are stacked on top of each other and completely covers each other individually, interactively and continuously. However, the reasoning for such combination is not discussed herein for brevity and for being considered unnecessary at this point of the prosecution.

Applicant argued, *"Shen does not disclose a system whereby multiple layers which are in an alignment with one another can be viewed at the same time."* In response to applicant's argument that "Shen" reference fails to show certain features of applicant's invention, it is noted that the features upon which applicant relies (i.e., "Shen's use of overlapping display areas in its browsing component...so that users do not have to interact with the display areas by moving or stretching them around in the

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XY-plane" , see page 15) are not recited in the rejected claim(s). As already mentioned above, although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993). The Examiner agrees with the Applicant that even when multiple layers can be arranged in an alignment with one another according to Shen's teaching, they cannot be viewed at the same time. However, the Examiner did not relied on Shen for viewing multiple layers at the same time, but relied on Plow for such limitation. It has been already mentioned that Plow clearly meets this limitation and as such, the invention is considered to be obvious over Shen in view of Plow.

Since Applicant presented the same arguments for independent claims 19, 29, 37, and 39, these claims are therefore addressed by the same rationale as provided hereinabove for claim 1. Also, since independent claims are not considered to be allowable, Applicant's argument that the dependent claims are also allowable as depending from an allowable independent claim is moot.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

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Claim 15 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 15 recites the limitation "the content layer" in line 2. There is insufficient antecedent basis for this limitation in the claim. It is noted that claim 1 recites rendering "one or more multimedia contents on one or more lairs on the browsing component, however, it is not clear which layer of the one or more content layer is referred to here by "the content layer".

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-3, 8, 9, 11-13, 18-19, 22, 24, 29, 32, 34, 37 and 39 are rejected under 35 U.S.C. 103(a) as being unpatentable over Shen et al. (US 2004/0221322 A1) hereinafter Shen in view of Plow et al. (US 6,429,883 B1) hereinafter Plow.

For claims 1, 11, 19, 22, 29, 32, and 37, Shen teaches multimedia content browsing on small mobile devices, comprising:

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a multimedia content database (multimedia content stored in a storage device constitutes a multimedia content database in the broadest reasonable interpretation, [0022]);

a processing component ([0022]) which searches for and retrieves one or more multimedia contents from the multimedia content database (searching and retrieving are inherent functionalities that must be performed in order to supply video content to the browsing component), wherein the processing component transmits the one or more multimedia contents to a browsing component over a communication network ([0022]); and

said browsing component which renders the one or more multimedia contents on one or more layers on the browsing component (101a in Fig. 1A shows rendering in one layer, Fig. 3A shows rendering using more than one layers, furthermore see text overlay utilization discussed in [0058]), wherein each of the one or more layers has a transparency value (layers that overlap each other as shown in Fig. 3A inherently have opaque transparency value).

Although Shen teaches wherein each of the one or more layers are rendered on top of each other (see Fig. 3A), he does not explicitly teach "in an alignment", and he also does not teach wherein the browsing component sets the transparency value of each of the one or more layers independently, interactively, and continuously via one or more input devices. However, Plow teaches rendering contents on one or more layers on the browsing component wherein each of the one or more layers are rendered on top of each other in an alignment (Plow shows stacking up layered

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windows in an alignment, wherein the alignment requires displaying a top layer slightly underneath and a little to the side of the bottom layer so that they are diagonally aligned with each other as displayed in Fig. 6), and wherein each of the one or more layers can have a transparency value and setting the transparency value of each of the one or more layers independently, interactively and continuously via one or more input devices (Fig. 3-7, column 3-4, When aligned according to the alignment shown in Fig. 6, the transparency buttons of each layer will be accessible, and thus transparency values of multiple layers can be adjusted independently when the layers are in an alignment with one another). Like Shen, Plow also deals with the problem of displaying information in a limited display space (see background of the invention). Plow resolves this problem by displaying the contents of the overlaying window at a variable degree of transparency based upon a user interaction so that the user can simultaneously view information from windows displayed in multiple layers (abstract). Therefore, it would have been obvious for a person of ordinary skill in the art to combine the teachings of Shen with that of Plow to arrive at the present invention. The motivation for such combination would have been to allow efficient use of limited display space for simultaneous viewing of multimedia contents displayed in layers (Plow, column 4 lines 17-19).

For claim 39, Shen teaches a system to support multimedia content browsing on small mobile devices, comprising:

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a multimedia content database (multimedia content stored in a storage device constitutes a multimedia content database in the broadest reasonable interpretation, [0022]);

a processing component ([0022]) which searches for and retrieves one or more multimedia contents from the multimedia content database (searching and retrieving are inherent functionalities that must be performed in order to supply video content to the browsing component), wherein the processing component transmits the one or more multimedia contents to a browsing component ([0022]);

the browsing component which renders a result of the search on a first layer, and renders the one or more multimedia contents on one or more second layers (Fig. 2D shows rendering a result of the search, e.g., key-frames 101a on a first layer, and renders the one or more multimedia contents, e.g., a collection of video frames 101J encompassing a video sequence that is represented by the key-frame 101a, on one or more second layers, e.g., on key-frame blow up 101I which can obviously be implemented in a separate window layered on top of the layer containing the key-frames 101a if not implicit in the reference), each of the first layer and the second layers has a transparency value (layers that overlap each other inherently have opaque transparency value), wherein the browsing component receives a designation of one of the multimedia contents via the first layer (as already mentioned, referring to Fig. 2D, the browsing component receives a designation of one of the key-frames 101a via the first layer when the frame is selected on the first layer).

Shen does not explicitly teach wherein the browsing component displays transparently the first layer and one of the second layers which corresponds to the designated multimedia content based on the transparency values of the layers, and an input device which inputs the transparency value of the first layer and the second layers independently and interactively. However, as already discussed in the rejection of claim 1 hereinabove, Plow teaches assigning transparency values to layered contents individually, interactively and continuously using an input device (see the rejection of claim 1 hereinabove, also in Plow Fig. 3-7, column 3-4). Therefore, it would have been obvious for a person of ordinary skill in the art to combine the teachings of Shen with that of Plow to arrive at the present invention. The motivation for such combination would have been the same as already mentioned in the rejection of claim 1 hereinabove.

For claim 2, Shen further teaches that the multimedia content database resides on at least one of: an external hard disk drive (HDD), a portable HDD, a wireless HDD, a Bluetooth HDD, and an internal HDD on a resource-rich computing device ([0022], also see [0065]).

For claim 3, Shen further teaches that a multimedia content of the one or more multimedia contents which includes one or more of: a video, a video segment, a keyframe, an image, a figure, a drawing, a graph, a picture, a text, and a keyword ([0022], [0024], [0029], [0058] and [0059]).

For claim 8, Shen further teaches that the processing component includes one of: a laptop PC, a desktop PC, a server, a workstation, and a mainframe computer ([0022], [0054]).

For claim 9, Shen teaches that the multimedia contents includes supplied by an external source such as a server to the browsing component ([0022]). Therefore, presence of a communication network between the external source and the browsing component is implicitly taught in the reference. It would have been obvious for a person of ordinary skill in the art at the time of the invention to use one of: Internet, an intranet, a local area network, a wireless network, and a Bluetooth network as the network of choice.

For claim 12, Shen further teaches that the browsing component includes one of: a PDA, a cell phone, a Tablet PC, a Pocket PC, and a small mobile device ([0022]).

For claim 13, Shen further teaches that the browsing component is further capable of performing on the one or more multimedia contents at least one of: querying the one or more multimedia contents by a keyword; exploring the one or more multimedia contents by viewing a keyframe of the one or more multimedia contents; and playing a stream of the one or more multimedia contents (Fig. 4A-5, [0023], [0049]-[0053]).

For claims 24 and 34, Shen further teaches rendering on a layer in the one or more layers the content of at least one of: a list of titles of the one or more multimedia contents, which is ordered by their relevance numbers based on the number of appearances of a keyword; an un-composed content of the one or more multimedia contents; a composed content of the one or more multimedia contents; and a stream of the one or more multimedia contents ([0023], Fig. 8, [0060]-[0064]).

For claim 18, Shen further teaches that an input device in the one or more input devices includes one of: a pen, and a stylus ([0030]).

Claims 4-7, 10, 20-21, 23, 30, 31 and 33 are rejected under 35 U.S.C. 103(a) as being unpatentable over Shen, in view of Plow, and further in view of Takata et al. (EP 0990998 A2) hereinafter Takata.

For claims 4, 10, 20 and 30, Shen teaches a multimedia content of the one or more multimedia contents comprises one or more segments ([0023],[0028],[0029] and [0059]). However, neither Shen nor Plow teaches that the multimedia content and each of the one or more segments can be associated with and retrieved by a keyword. But Takata teaches an image search apparatus and method that acquires associative words in relation to an input query word, and makes a keyword search of image information in a multimedia database on the basis of the obtained associative words

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and input query word (abstract and summary of the invention). Therefore, it would have been obvious for a person of ordinary skill in the art to combine the teachings of Shen and Plow with that of Takata to arrive at the present invention. The motivation for the combination would have been to manage a large collection of multimedia contents and retrieve the desired multimedia contents efficiently and accurately (Takata, [0009]).

For claim 5, Shen further teaches a graphical representation of at least one of: the one or more segments composing the multimedia content ([0023], [0027]-[0030], and [0059]); the associated keyword of each of the one or more segments; and a relevance number of each of the one or more segments.

For claims 6, 21 and 31, Shen further teaches that the multimedia content includes one or more segments from one or more source multimedia contents ([0027]-[0030]).

For claim 7, Shen further teaches a graphical representation of the source multimedia content of each of the one or more segments composing the multimedia content ([0023],[0027]-[0030]).

For claims 23 and 33, it has already been pointed on in the rejection of claim 13 that Shen teaches exploring the one or more multimedia contents by viewing a keyframe of the one or more multimedia contents; and playing a stream of the one or

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more multimedia contents (Fig. 4A-5, [0023], [0049]-[0053]). Shen does not teach querying the one or more multimedia contents by a keyword. However, it has already been discussed in the rejection of claim 4 that Takata teaches a technique of querying multimedia contents by a keyword and why it would have been obvious to combine the teachings of Shen and Plow with that of Takata to arrive at the present invention.

Claims 14-16, 26 and 35 is rejected under 35 U.S.C. 103(a) as being unpatentable over Shen, in view of Plow, and further in view of Smith (US 5,933,141).

For claims 14, 16, 26 and 35, Shen does not teach adjusting interactively the transparency value of each of the one or more layers via the one or more input devices. However, it has already been pointed out in the rejection of claim 1 that Plow teaches adjusting interactively the transparency value of each of the one or more layers via the one or more input devices and the motivation behind combining the teachings of Shen with that of Plow. But neither Shen nor Plow teaches using a widget layer for adjusting interactively the transparency value of the layers. Smith teaches using a picture adjustment control layer overlayed on top of the content layer wherein the transparency of the control layer can be changed based on user events (Fig. 3A, column 6). Like Shen and Plow, Smith also deals with the problem of displaying information, specially control interfaces, in a limited display space and tries to achieve efficient utilization of such limited display space for optimum and simplified user

interaction. Therefore, it would have been obvious for a person of ordinary skill in the art to combine the teachings of Shen and Plow with that of Smith to arrive at the present invention. The motivation for such combination, to provide the user control (100 in Fig. 3) for interactively adjusting the transparency of the layers as taught by Plow within a widget layer as taught by Smith, would have been to avoid cluttering the limited display space available with user interface controls. Also it should be noted that Plow explicitly mentions, "Although the implementation of a button is preferable, one of ordinary skill in the art will readily realize that various types of user interactions could be implemented while remaining within the spirit and scope of the present invention" (c3:21-25).

For claim 15, it recites similar limitation as claim 24 and thus rejected under the same rationale described in the rejection of claim 24 hereinabove.

Claims 27 and 28 are rejected under 35 U.S.C. 103(a) as being unpatentable over Shen, in view of Plow, further in view of Takata, and further in view of Frank et al. (US 5,651,107).

For claims 27 and 28, Shen does not teach adjusting the transparency value of the one or more layers via the one or more input devices. However, it has already been pointed out in the rejection of claim 1 that Plow teaches adjusting the transparency value of the one or more layers via the one or more input devices and the motivation behind combining the teachings of Shen with that of Plow. Plow teaches using a

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transparency button (100 in Fig. 3) which when clicked causes the transparency of the layer to be varied based on the duration between the click and the click release of the button. But neither Shen nor Plow teaches adjusting the transparency value of one of the one or more layers in the X direction by the one or more input devices. However, Frank teaches adjusting the transparency value of one of the one or more layers in the X direction by the one or more input devices (262 in Fig. 8). Frank's choice of using a slider instead of a button as used by Plow gives a better graphical indication of the level of transparency currently selected. Therefore, it would have been obvious for a person of ordinary skill in the art to combine the teachings of Shen, Plow and Takata with that of Frank to arrive at the present invention. The motivation would have been to provide a stronger man-machine interface (Frank, column 1, lines 45-47). For claim 28, the reasoning for the combination is similar to that of claim 27. However, having the slider oriented to the Y direction instead of the X direction would have been obvious and motivated by the orientation of the presentation as taught by Shen (see vertical 501A vs. horizontal 501B presentation orientation as shown in Fig. 5, [0052]). When the presentation orientation is chosen to be the vertical orientation due to the aspect ration of the display 103, it would have been obvious to also orient the frequency adjustment slider to the vertical direction and thereby adjusting the transparency value of one of the one or more layers in the Y direction.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Rashedul Hassan whose telephone number is 571-272-9481. The examiner can normally be reached on M-F 7:30AM - 4PM EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Weilun Lo can be reached on 571-272-4847. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status

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information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

A handwritten signature in black ink, appearing to read 'Rashedul Hassan', with a stylized flourish at the end.

(Rashedul Hassan)

A handwritten signature in black ink, appearing to read 'Weilun Lo', with a stylized flourish at the end.

WEILUN LO
SUPERVISORY PATENT EXAMINER